

FIG 1

The diagram illustrates a multi-plane memory system architecture. At the top, an **Address Buffer** (20) receives an **AXi** input and outputs **AINi** signals to a series of registers (24). These registers include a **General Mode Register** (34), a **Burst Read Counter/Register** (35), a **Program/Erase Counter/Register** (36), and a **Suspend Program Register** (37). The **General Mode Register** outputs **ADi**, which is connected to **Plane Selectors** (40, 41, 43) for planes A, B, and N respectively. The **Burst Read Counter/Register** outputs **ACi**, and the **Program/Erase Counter/Register** outputs **APCi**, both connected to the **Plane Selectors**. The **Suspend Program Register** outputs **ASPi**, which is connected to the **Plane Selectors** and also to the **Plane Function Select Control Logic** (32). The **Plane Function Select Control Logic** (32) also receives a **COMMAND** input and outputs **APLAi** to a **Plane Decoder** (28). The **Plane Decoder** (28) outputs **PLA_A**, **PLA_B**, and **PLA_N** signals to the **Plane A Decoder** (50), **Plane B Decoder** (51), and **Plane N Decoder** (53) respectively. Each plane decoder outputs signals to its respective set of memory sectors: **Plane A Decoder** to **Sector0**, **Sector1**, ..., **SectorN** (60); **Plane B Decoder** to **Sector0**, **Sector1**, ..., **SectorN** (51); and **Plane N Decoder** to **Sector0**, **Sector1**, ..., **SectorN** (53). A **Command Decoder** (30) is also shown, which receives **APLAi** and outputs control signals to the **Plane Selectors** and the **Plane Function Select Control Logic**.

Fig. 3

34

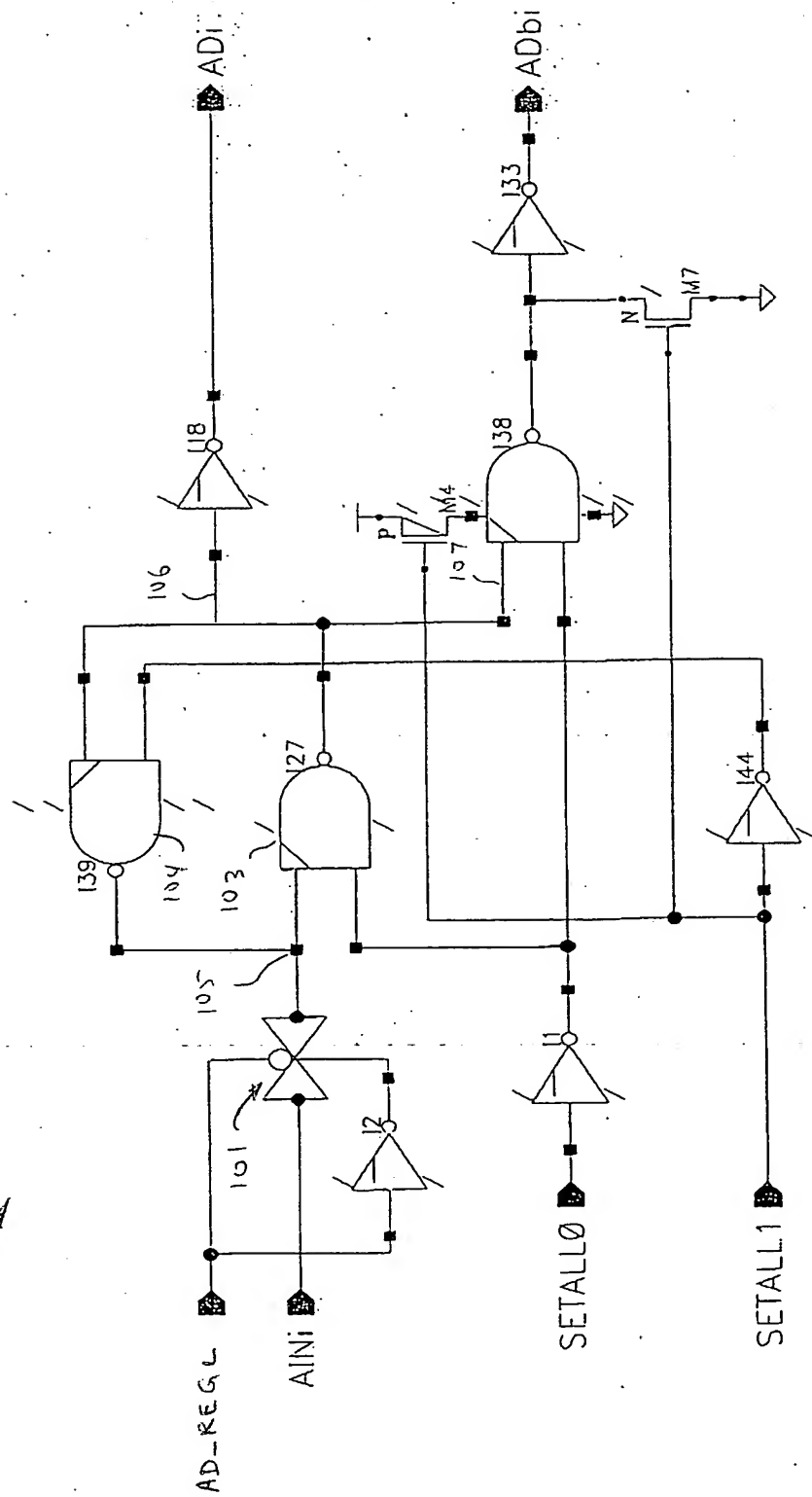


Fig. 4

35

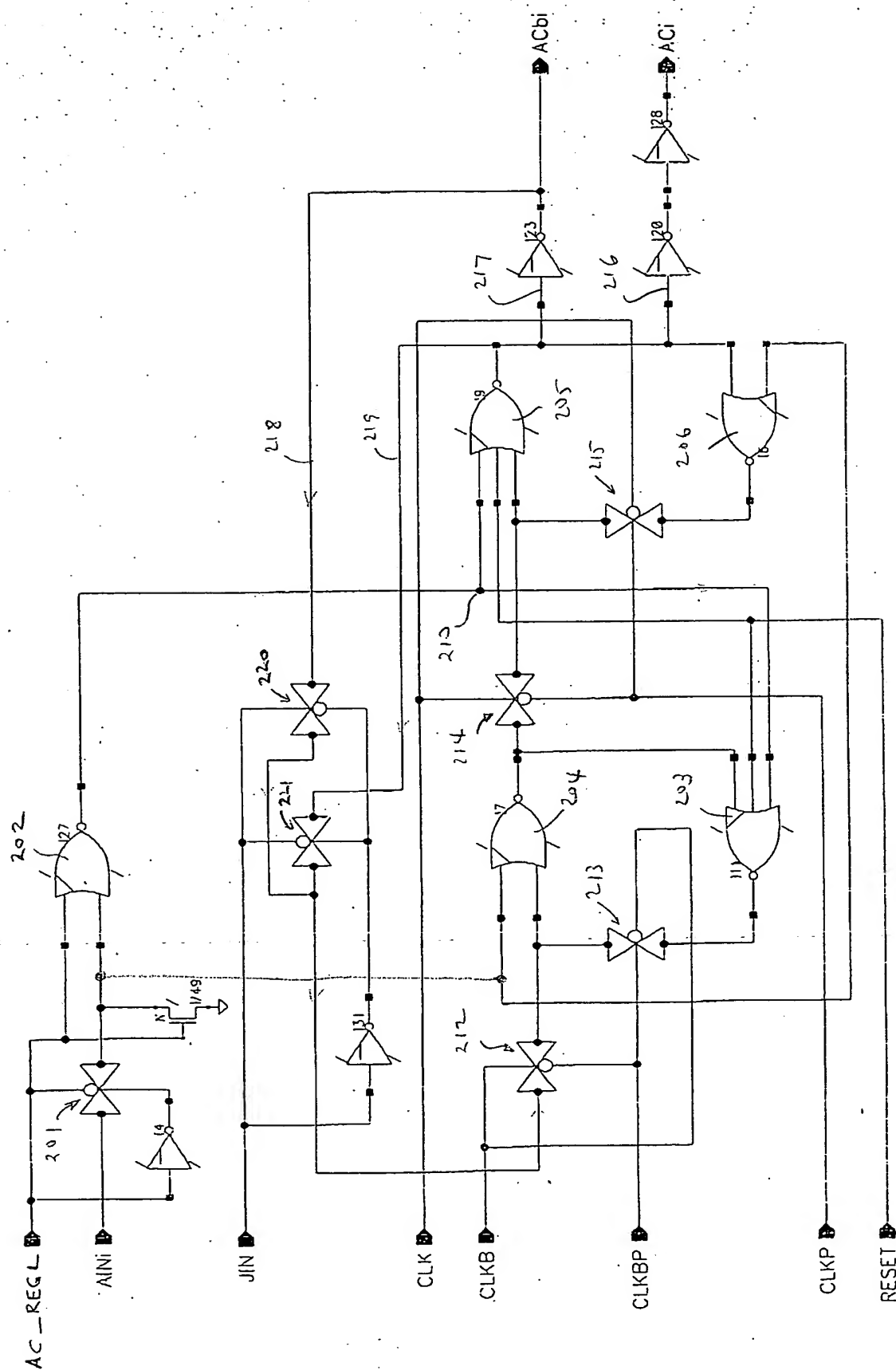


Fig. 5

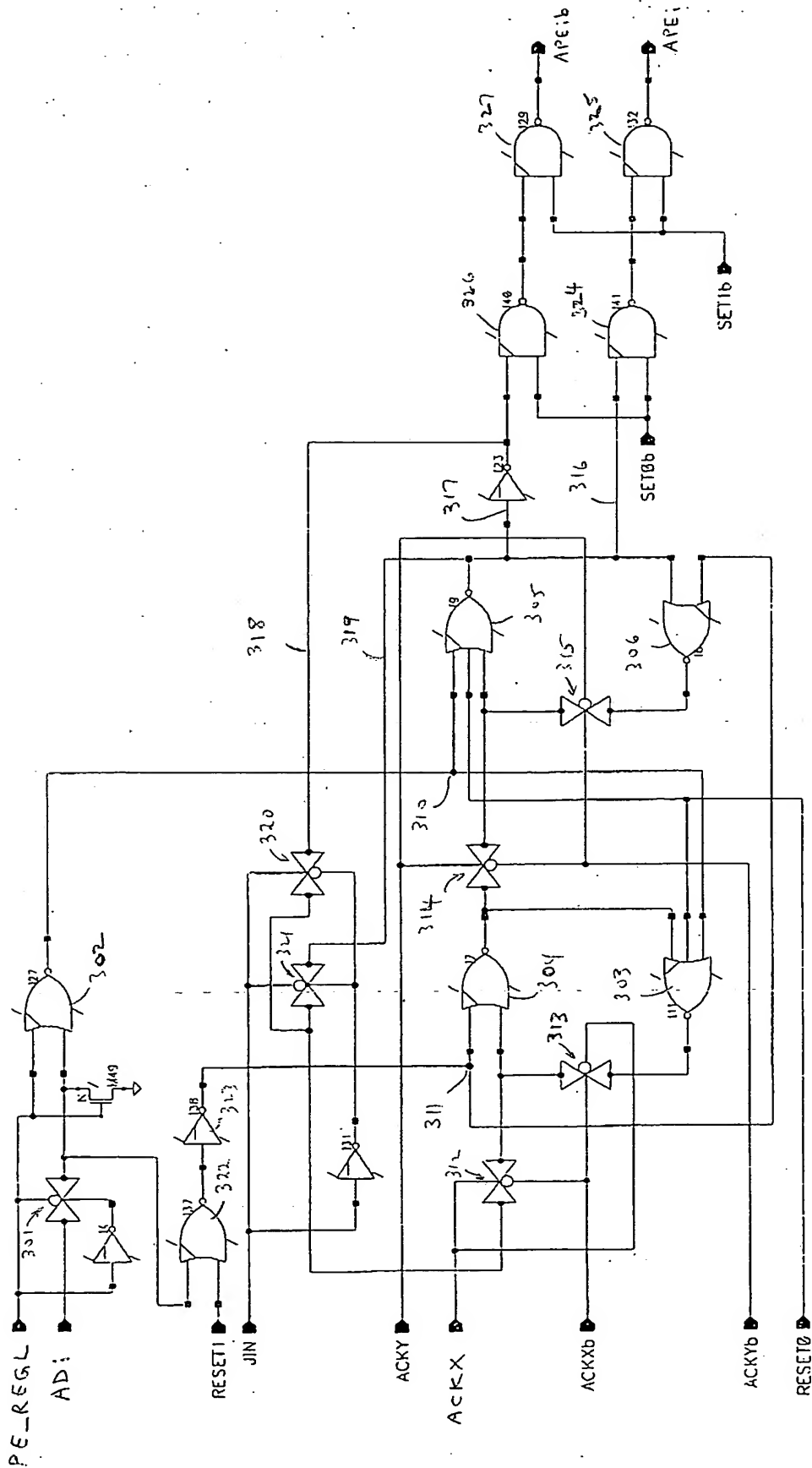


Fig. 6

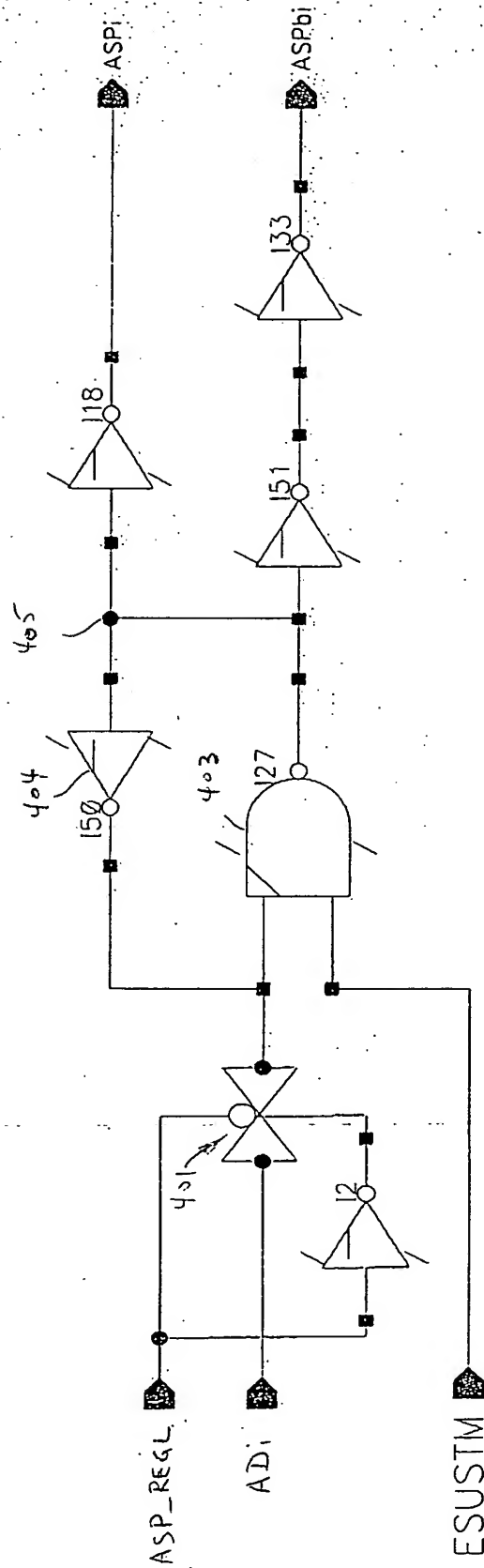


Fig. 7

